REMARKS

Claims 42, 43, 45-49, and 53-61 are pending. As disclosed herein, claims 43, 47, 55, 57, 59 and 60 are currently amended. No new matter has been introduced. Applicant respectfully requests reconsideration of the claims in light of the following arguments. Applicant believes that the Application is in a condition for allowance.

Election/Restrictions

Applicants acknowledge and thank the Examiner for examining all species listed in claim 49.

Claim Objections

Claim 60 was objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 60 has been amended to place the claim in proper dependent form to indicate that the species disclosed are a group selected from growth factors. Withdrawal of the objection is respectfully requested.

Claim Rejections

35 U.S.C. § 112 - Indefiniteness

Claim 43 was rejected because it was not clear to the Examiner what "about 16,000 to about 20,000 per 4 mm^2" intended to point out. Applicant has amended the claim to particularly point out that the "4 mm^2" refers to the amniotic membrane, and withdrawal of the rejection is respectfully requested.

Claim 47 was rejected for not further limiting claim 42 upon which it depends, because the limitation of "cells cultured on the amniotic membrane" could be any cell including "retinal pigment epithelial cells." Applicant has amended the claim to particularly point out that the "cells cultured on the amniotic membrane" refer to "retinal pigment epithelial cells cultured on the amniotic membrane," and withdrawal of the rejection is respectfully requested.

Claim 55 was rejected because it was not clear to the Examiner where the additional step of adding mesenchymal cells would be carried out in the method steps of claim 42 and 54. Applicant has amended the claim to clearly point out that the step of adding mesenchymal cells is carried out

before inserting the composite into a subretinal space. Withdrawal of the rejection is thereby requested.

Similarly, claim 57 was rejected because it was not clear to the Examiner where the additional step of treating the amniotic membrane with excimer laser ablation would be carried out in the method of claim 42. Applicant has amended the claim to clearly point out that the step of treating the amniotic membrane with excimer laser ablation is carried out before inserting the composite into a subretinal space. Withdrawal of the rejection is thereby requested.

35 U.S.C. § 112 – Written Description and Enablement

Claims 56 and 59 were rejected as failing to comply with the written description requirement. For claim 56, the Examiner found no description in the specification for the mesenchymal cells of claim 55 being fibroblasts, and therefore the claim introduces new matter. For claim 59, the Examiner found no description in the specification for the limitation "cells that have been immortalized by viral agents or non-viral agents." The Examiner also rejected claim 59 for not providing enablement for any cell that has been immortalized by viral agents or non-viral agents.

Applicants respectfully traverse Examiner's rejection of claim 56. Paragraph [0024] of the Application describes an amniotic membrane with an avascular mesenchymal layer. It is well known in the art that this mesenchymal layer comprises fibroblasts, and therefore the fibroblasts of claim 56 are adequately described.

Applicant has also amended claim 59 to delete the phrase "cells that have been immortalized by viral agents or non-viral agents." Applicants contend that the Examiner's written description and enablement rejections to claim 59 are now hereby moot, and respectfully requests withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

35 U.S.C. § 103

Claims 42, 43, 45-46, 49, 54 and 57-61 were rejected under 35 U.S.C § 103(a) as unpatentable over Liu (U.S. Patent No. 6,045,791) in view of Dutt et al. (1991; IDS ref. #15). The Examiner stated that Liu teaches a method of treating a retinal disorder such as age-related macular degeneration, by transplanting RPE cells cultured on an attachment substrate into the subretinal area of a patient in need thereof, although it does not teach the use of an amniotic membrane. Further

according to the Examiner, Dutt et al. teach the use of human amniotic membrane as a substrate for culturing retinal pigment epithelial cells. The Examiner felt that therefore a skilled artisan would have been motivated to replace the collagen substrate of Liu with the amniotic membrane of Dutt et al. in the method of Liu, since both substrates are considered art-recognized equivalents for growing RPE cells for transplantation.

Applicants respectfully traverse Examiner's § 103 rejection for the following reasons. Unlike the instant application, Liu does not teach a *composite* comprising amniotic membrane and a plurality of RPE cells or RPE equivalent cells. Furthermore, Liu does not teach or suggest that such a composite could be used for treating a retinal disease. In addition, Liu does not teach or suggest the use of amniotic membrane as a support for a plurality of RPE cells or RPE equivalent cells. Thus, Liu has at least three degrees of separation from the present application.

Importantly, Dutt et al. do not resolve the deficiencies of Liu. Unlike the instant application, Dutt et al. do not describe any therapeutic applications, such as treating a retinal disease, particularly a method for treating a retinal disease comprising inserting in a subretinal space of a patient in need thereof a composite comprising amniotic membrane and a plurality of retinal pigment epithelial cells or RPE equivalent cells on the membrane. In addition, Dutt et al. also only describe the culture of an *immortalized* cell line, which differs from other types of RPE and RPE equivalent cells, *and is not even a cell type that is contemplated by the instant application.* Dutt et al. provides no indication that non-immortalized RPE cells could be cultured on amniotic membrane. In addition, Dutt et al. do not teach the use of amniotic membrane prepared as particularly described in the Application. Dutt et al. actually teach away from the use of an extracellular matrix prepared from amniotic membrane, concluding that extracellular matrices of collagen IV and endothelial cell extracellular matrix are the best substrates. *See* Dutt et al. at 1099. Thus, Dutt et al. has at least three degrees of separation from the present application.

Thus both Liu and Dutt et al have at least three degrees of separation from the present application, and no form of adding these two references together leads to the present application. One of skill in the art would not have replaced the collagen substrate of Liu with the extracellular matrix prepared from amniotic membrane of Dutt et al. in order to treat a retinal disease. Further, the references (under any form of combination) do not disclose or suggest a composite comprising

amniotic membrane and a plurality of RPE cells or RPE equivalent cells on the membrane for treating a retinal disease. Because claim 42 is not obvious by Liu in view of Dutt et al., dependent claims 43, 45-46, 48, 49, 54, 55, 56, 57-61 are also non-obvious, and withdrawal of each rejection is earnestly requested.

CONCLUSION

Applicant submits that this paper fully addresses the Office Action mailed June 6, 2007. Applicants respectfully solicit the Examiner to expedite prosecution of this patent application to allowance. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned attorney at (858) 350-2306. The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account No. 23-2415 (Docket No. 34157-707.831).

Respectfully submitted,

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